

UNITED STATES
DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

FINDING OF NO SIGNIFICANT IMPACT

And

DECISION RECORD

Brush and Childers Creek Aquatic Habitat Restoration
Environmental Assessment No. 0R090-EA-07-03

Background:

An Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the proposed Brush and Childers Creek Habitat Restoration Project were prepared by the Upper Willamette Resource Area, Eugene District. This project proposes to conduct aquatic habitat restoration, fish passage improvement, road surface improvement, unauthorized OHV trail closure, and noxious weed treatment within the Brush and Childers Creek drainages, Calapooia River 5th Field Watershed, Upper Willamette River Sub basin. The location of the project area is T.14 S., R. 1 W., section 33 and 34, and T. 15 S., R.1 W. section 2 and 3.

Purpose and Objective

The purpose of this action is to: (1) restore the spatial and temporal connectivity of the aquatic ecosystem by improving fish passage at an existing road-stream crossing, (2) enhance aquatic and riparian habitat complexity, (3) increase the quality and quantity of spawning and rearing habitat for resident and anadromous fish species, (4) treat and limit the spread of noxious plant species, and (4) reduce road and Off-Road Highway (OHV) road related sediment delivery to the project area streams.

The need for action is based on surveys conducted by ODFW (Aquatic Habitat Inventory, 2006) and a BLM (Aquatic Habitat Project Survey, 2005/06) that showed Brush and Childers Creek lacking large wood structure, channel complexity, adequate spawning and rearing habitat, and multiple fish passage culvert barriers. In addition, a road network inventory (BLM 2006) documented road and OHV trail related sediment delivery to nearby streams and moderate levels of noxious weed infestation.

Public Comment:

The EA was advertised on June 6, 2006 in the Eugene Register Guard as available for a 15-day public review period. No comments were received during the review period.

Finding of No Significant Impact:

On the basis of the information contained in the attached Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action will not have significant environmental impacts not already addressed in the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern*

Spotted Owl (April 1994) and the Eugene District Record of Decision and Resource Management Plan (June 1995), Aquatic Conservation Strategy (ACS) Objectives listed on page B-11 of the Northwest Forest Plan, and the Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (2001) with which this EA is in conformance, and does not, in and of itself, constitute a major federal action having significant effect on the quality of the human environment. Therefore, a new environmental impact statement or supplement to the existing environmental impact statement is not necessary and will not be prepared.

Decision:

Based on the analysis documented in the Environmental Assessment No. 0R090-EA-07-03 and the Finding of No Significant Impact, it is my decision to implement Alternative 2 the Proposed Action. Under this alternative the following actions would occur:

- Aquatic Habitat Restoration: Instream large wood placement would occur in mainstem Brush and Childers Creek. The project would involve a combination of tree pulling from the riparian area and log placement.
- OHV Trail Decommission: An unauthorized OHV road, which originates off county Road No.1900 and crosses Brush Creek through a steep riparian area, would be fully decommissioned.
- Fish Passage Improvement: approximately 4 boulder weir structures would be constructed downstream of an existing road-stream crossing.
- Noxious Weed Treatment: To the extent possible, noxious weeds would be removed. Native riparian vegetation would be reestablished where possible throughout the project area.
- Road Improvement: Road No.14-1-33 and 34 would receive aggregate surfacing at most stream crossings to reduce road related sediment delivery. It is estimated that 10 stream crossings and 0.5 mile of road would be treated. Ripraping would occur at designated road-stream crossings for fill- and cutslope stability.

Decision Rationale:

The Proposed Action was selected because over the long-term it restores the physical integrity of the aquatic and riparian system, restores the spatial and temporal connectivity within the drainage, and restores water quality to support health riparian and aquatic ecosystems. The project would provide for the movement of fish and other aquatic-dependent species through the system for a number of life history needs and increase the genetic diversity throughout the drainage.

ACS Consistency:

This section summarizes how the selected alternative does not prevent the attainment of ACS objectives, as outlined in 1994 NWFP ROD on page B-11. The selected alternative also is consistent with the Calapooya Watershed Analysis.

1. **Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.**
This action would help restore the distribution, diversity, or complexity of current watershed landscape-scale features. The proposed action alternative would provide an

immediate increase in the amount of large woody debris to the streams. Over time, this input of large wood would restore the sediment regime, the flow regime, the deposition of gravels, and the formation of deep pools, backwater and off-channel habitat. Woody debris input to the stream would be distributed downstream over time by natural processes, thus providing benefits beyond the project area.

2. **Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope Areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.**

The proposed alternative would improve the spatial and temporal connectivity within the Childers Creek watershed. The placement of boulder weirs below an existing culvert would restore passage to approximately one mile of suitable upstream habitat for fish and other aquatic-dependent species. Improvements at road-stream crossings would lessen the chance of road erosion or culvert failure and would reduce the risk of sedimentation. Long term habitat connectivity at these sites would be maintained.

3. **Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.**

This proposed alternative would restore the physical integrity of the aquatic system. A fish passage barrier would be ameliorated, plus improvements at road-stream crossings would resolve erosion and sedimentation concerns; thereby, providing long-term benefits to the physical integrity of the aquatic environment.

4. **Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.**

Water Quality would be improved under this alternative over the long-term. Impacts to stream temperature would not occur. Shading around hydrologic features would remain similar to current conditions with untreated buffer areas and a high level of canopy retention. Few stream-side trees would be pulled to accomplish restoration activities.

This action, combined with other restoration work in the watershed (both on Federal and private lands) would contribute to a reduction in road related sediment production. By closing an unauthorized OHV trail, vegetation is expected to grow into the road prism and provide additional resistance of these soils to erosion. Placing additional rock aggregate surfacing on the permanent road system adjacent to Childers Creek would reduce road related sediment delivery. The aggregate would enhance effective road maintenance in the future as well. Armoring the inlet fill of Culvert # 1 would reduce the potential for erosion at that location.

5. **Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.**

Decommissioning the unauthorized ORV trail would help restore infiltration and aid in preventing erosion of soils and sedimentation to Brush Creek. Placing additional rock aggregate surfacing on the permanent road system adjacent to Childers Creek would reduce road related sediment delivery. Over the long-term, the addition of large woody debris is expected to regulate the transport and storage of sediments which adds to hydraulic complexity, especially in organic rich channels that are often wide and shallow and possess a high diversity of riffles and pools in low gradient stream of alluvial valley floors (Keller

and Swanson (1979).

6. **Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.**

The proposed alternative would not alter changes to summer low flows, peak flows, and overall water yield; therefore, in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats would be maintained.

7. **Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.**

The proposed alternative is expected to restore the timing, variability, and duration of floodplain inundation and water table elevation in nearby wetlands. Instream large woody debris maintains a diverse physical habitat by creating backwaters along the stream margin and causing lateral migration of the channel, forming secondary channel systems, and increasing connectivity with the floodplain and riparian area.

8. **Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability.**

Species composition and structural diversity of riparian plant communities would be maintained and restored within Riparian Reserves and upland areas. Noxious weeds would be removed where possible throughout the project area. Areas of large infestation would be treated for removal and planted with native species. Streamside areas lacking vegetation and shade would be planted with native conifers and hardwoods.

9. **Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.**

With the implementation of the proposed action, habitat for riparian-dependent species would be increased over the long-term. Large organic debris and fallen trees greatly influences the physical and biological characteristics of stream and riparian habitat. With the addition of large wood to the stream and riparian area, habitat would be improved for many species. Large key pieces of wood would add to the spatial, chemical, and biotic diversity of the riparian area, and to the processes that maintain long-term riparian function.

Administrative Review Opportunities:

The decision to implement this aquatic and riparian habitat restoration project may be protested under 43 CFR 5003 --Administrative Remedies. In accordance with 43 CFR 5003.2, this decision will not be subject to protest until the notice of decision is published in the Eugene Register-Guard. The published notice of decision will establish the effective date of the decision. 43 CFR 5003.2(a). Protests of this decision must be filed with this office within fifteen (15) days after publication of the notice of decision.

Approved by: William O'Sullivan
Upper Willamette Resource Area Manager

Date: 6/25/07